

## **REMARKS**

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 1, 4, 10 and 12-14 stand rejected under 35 USC § 102(b) as being anticipated by Hüskens et al. (U.S. 5,836,768). As discussed in the previous response, Hüskens et al. disclose a dental implant having an anchoring base and a separate bracket 50 that is bonded to the side of the implant. The bracket 50 has a borehole 53 through which the retaining wires are inserted, as opposed to the more convenient slit-recess formed in the head of the present implant. Moreover, the present system uses an adhesive compound that is disposed on the head of the implant to fix a section of the wire in the slit-recess. The Hüskens et al. reference does not use an adhesive for fixing the wires to the bracket 50.

Claim 1 of the present application has been amended to expressly recite the above-noted distinctions. In particular, Claim 1 recites an implant comprising a slit which is particularly advantageous in combination with fixing the wire by an adhesive, as the adhesive composition can be easily attached to the implant head by the clinician. The further advantage is that the adhesive forms a smooth cap on the head which cap does not feel unpleasant to the patient despite the recess. A recess in combination with an adhesive composition disposed over the wire for bonding the wire to the implant is not obvious in view of Hüskens, because the use of an adhesive for bonding the wire to the implant according to Hüskens would not bring those advantages that accrued in an implant according to Claim 1.

Accordingly, Claim 1, as well as dependent Claims 4, 10 and 12-14, are not anticipated nor rendered obvious by the Hüsken et al. reference.

Claims 1-18 stand rejected under 35 USC § 103(a) as being unpatentable over Kanomi et al. (U.S. 6,354,834) in view of Watt et al. (U.S. 5,707,231). Kanomi et al. disclose an orthodontic implant that includes a neck portion 18 for receiving a U-shaped engaging portion 16 of a connecting unit 12. The engaging portion 16 of the connecting unit 12 is slid along the narrow neck portion 18 of the implant unit 11 and then the free-ends of the U-shaped engaging portion 16 are crimped over to secure the connecting unit to the implant. Note, the shallow cross-shaped recess 59a formed in the head 59 of the implant 51 in the alternative embodiment illustrated in Figs. 7B and 7C is merely provided to enable an orthodontist to screw the implant unit into a jaw bone with a screwdriver. (Col. 10, lines 56-60). Kanomi et al. is completely devoid of any suggestion that the recess 59a can accommodate or can be used to fix a wire tensioning/retaining element to the implant.

Consequently, the present invention as defined in independent Claim 1 differs from the Kanomi et al. structure by at least the provision of a curable adhesive compound for fixing a section of a tension/retaining element in a slit-recess formed in the head of the implant. The Examiner suggests that Watt et al. teach an orthodontic system comprising a curable adhesive composition and that it would be obvious to modify the system of Kanomi et al. to include the adhesive composition from Watt et al. Applicants respectfully disagree with this conclusion.

The Watt et al. reference shows an "orthodontic assembly having an orthodontic appliance in which at least one region thereof is a material composed of reinforcing

structures distributed (...) and suspended (...) within a matrix material" (cf. col. 2, lines 18-26). In one embodiment the appliance has a bonding surface which projects towards the patient's tooth whereby a region of the matrix material and reinforcement structures provide a surface for interconnecting the appliance and the tooth by using a bonding adhesive. Watt et al. uses the bonding adhesive 22 to attach the appliance to the teeth (cf. col. 10, 1.1-11 and Fig. 4). Thus, Watt et al. use the bonding adhesive 22 to attach a bracket to the teeth, not for fixing the wire to the bracket or to an implant.

In addition, it is unclear why one of ordinary skill in the art would apply an adhesive to the Kanomi et al. structure when the Kanomi et al. patent clearly teaches the mechanical attachment of the connecting unit to the head of the implant by crimping the ends of a U-shaped bracket. Consequently, there is no need for the addition of an adhesive to the Kanomi et al. structure. Therefore, it is respectfully submitted that the present invention as defined in Claim 1 is not rendered obvious by the combined teachings of Kanomi et al. in view of Webb et al.

In addition to the above-noted distinctions, independent Claim 15 patentably distinguishes over the cited art by further reciting that the depth of the slit-recess formed in the head of the implant can receive two tensioning/retaining elements. This feature of the present invention provides the further advantage of minimizing the number of implants necessary to fix different teeth. Neither Kanomi et al. nor Watt et al. disclose or suggest this added feature. Accordingly, Claim 15, as well as those Claims 16-18 dependent thereon, are also believed to present patentable subject matter.

New Claim 19 is directed to an orthodontic implant system, wherein at least one elongated tensioning/retaining element is fixed in a recess in the head of an implant by

an adhesive composition. None of the cited prior art references disclose or suggest fixing a tension/retaining element in a recess of an implant by an adhesive composition. Accordingly, Claim 19 is believed to present patentable subject matter.

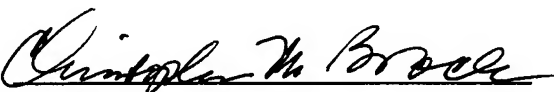
Claim 20 is directed to a corresponding method of fixing a tension/retaining element to an orthodontic implant by fixing the tension/retaining element in the recess formed in the head of the implant by means of an adhesive composition. Similarly, Claim 20 is also believed to present patentable subject matter.

Lastly, Claim 21 is directed to an orthodontic implant system having at least two elongated recesses for receiving a section of a tensioning/retaining element and a curable adhesive composition disposed on the head over the section of tensioning/retaining element to fix the section of the tensioning/retaining element in the recess. Accordingly, Claim 21 is also believed to present patentable subject matter.

Pending Claims 1 and 3-21 of the present application are believed to be in condition for allowance. Favorable reconsideration is respectfully solicited.

Respectfully submitted,

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